While much has changed over the past two decades to make the Superfund Program faster, fairer and more efficient, the original goal remains the same: *to protect the health of the public and the environment*. The Agency for Toxic Substances and Disease Registry (ATSDR), created under CERCLA, conducts public health assessments at each of the sites on the National Priorities List (NPL). ATSDR regularly updates the list of substances that are most commonly found at NPL sites and that are determined to pose the most significant potential threat to human health due to their known or suspected toxicity and potential for human exposure at these sites.

Below are brief descriptions of the health effects of nine hazardous substances commonly found at NPL sites nationwide. This is not a list of the most toxic substances, and some contaminants found at Region III Superfund sites may not be included on this list. For more information about specific contaminants found at Region III sites, we encourage you to visit ATSDR's Hazardous Substance Release and Health Effects Database at: http://www.atsdr.cdc.gov/hazdat.html.

Arsenic

Arsenic is a naturally occurring element used widely in pesticides. Ingesting large doses of arsenic may cause death, while lower doses may cause nausea, vomiting, abnormal heart function, liver and/or kidney damage and impaired nerve function. Inhaling arsenic may increase the risk of lung cancer. EPA has prohibited many uses of arsenic in pesticides, and may restrict even more.

Lead

Lead is a naturally occurring metal found in plants and animals used for food, and in air, water, and soil. Exposure by pregnant women can cause premature birth or low birth weight. Lead exposure in infants and young children has been shown to decrease IQ scores, slow physical growth and cause hearing problems. Exposure to high levels of lead can cause severe brain and kidney damage. Lead exposure also may increase blood pressure in middle-aged men and can damage parts of the male reproductive system. Because of health concerns, lead from gasoline, paints and ceramic products, caulking and pipe solder have been dramatically reduced in recent years.

Mercury

Mercury is a naturally occurring element often used in thermometers. Long-term exposure to mercury can permanently damage the brain, kidneys and developing fetuses. Short-term exposure to mercury may cause similar effects, but full recovery is likely once the body clears itself of the contamination.

Vinyl chloride

Vinyl chloride is a manufactured chemical often used to make pipes, wire and cable coatings, plastic packaging materials, furniture and

automobile upholstery, wall coverings and automotive parts. Short-term exposure to vinyl chloride can cause dizziness and lack of muscle coordination, headache, unconsciousness, and even death. Long-term exposure to this chemical has caused cancer and Vinyl Chloride Disease. This disease is characterized by severe damage to the liver, effects on the lungs, poor circulation in the fingers, thickening of the skin, and changes in the blood. EPA requires that spills or accidental releases of vinyl chloride into the environment be immediately reported.

Benzene

Benzene is a chemical that occurs naturally and is also manufactured from coal and oil. Exposure to high levels of benzene may cause drowsiness, dizziness, headaches, and even death. Long-term exposure to this chemical can cause severe anemia and internal bleeding and may cause cancer. EPA requires that spills or accidental releases of benzene into the environment be immediately reported.

Polychlorinated Biphenyls (PCBs)

PCBs are a family of manufactured chemicals that have been used widely as coolants and lubricants in transformers, capacitors, and other electrical equipment. PCBs are suspected of causing cancer. Because of the health effects of PCBs on humans, the United States stopped manufacturing these chemicals in 1977.

Polynuclear Aromatic Hydrocarbons (PAHs)

PAHs are a group of chemicals that occur naturally and also are formed during the incomplete burning of coal, oil, and gas, garbage or other organic substances. PAHs are suspected of causing cancer and may cause birth defects and decreased body weight.

Trichloroethylene (TCE)

TCE is a manufactured chemical mainly used as a solvent to remove grease from metal parts. Dizziness, headaches, slowed reaction time, sleepiness and facial numbness have occurred in people exposed to this chemical. Exposure to high levels of TCE may cause unconsciousness or even death. Long-term exposure to this chemical may cause kidney and/or liver damage. EPA has developed strict regulations for the proper handling and disposal of TCE.

Dioxins

Dioxins are a family of 75 chemically related compounds commonly known as chlorinated dioxins and are formed during chlorine bleaching processes at pulp/paper mills and chlorination by waste and water plants. Exposure occurs mainly from eating food that contain such chemicals, several of which are highly toxic, with exposure to high doses causing rashes, birth defects, and potentially causing cancer.